

Section III—SPECIFIC APPLICATIONS INCLUDING
DIE DESIGN

February 27th

BLOW MOULDING

LECTURER: John K. Neely,
Plastic Section,
Technical Service Development,
Dow Chemical of Canada Ltd.,
Sarnia, Ont.

March 6th

WIRE COVERING

LECTURER: W. C. King,
Northern Electric Co. Ltd.
Lachine, Quebec.

March 13th

FILM AND LAMINATING

LECTURER: Representative from
E. I. Dupont De Nemours & Co. Inc.,
Wilmington, Delaware

March 20th

PIPE AND PROFILE EXTRUSION

LECTURER: James A. Walsh,
Dupont of Canada Ltd.,
Kingston, Ont.

March 27th

**SUMMARY AND NOTES ON VARIOUS
THERMOPLASTICS**

LECTURER: Mr. M. Billings,
Plastic Section,
Technical Service Development,
Dow Chemical of Canada Ltd.,
Sarnia, Ont.



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**UNIVERSITY OF TORONTO
UNIVERSITY EXTENSION**

Session 1962

Course on

**FUNDAMENTALS
and
TECHNOLOGY
of the
PLASTICS INDUSTRY**

Extrusion—1962

sponsored by

**THE ONTARIO SECTION OF THE
SOCIETY OF PLASTICS ENGINEERS**

FUNDAMENTALS AND TECHNOLOGY OF THE PLASTICS INDUSTRY

Tuesdays

12 Lectures

The Extrusion process as a means of forming materials has been in use since the beginning of the 19th century. Although it became an established tool of the rubber and cable industry during the middle or latter part of that century, it was not until the development of some of the newer polymers that its full potential began to be realized. Today, extrusion is employed in the production of plastic films, pipes, sheet, profiles and coating on wire, paper, and other substrates. Extruders are also used for compounding, mixing and conveying in resin manufacturing operations. Extrusion, by virtue of its continuous nature, is one of the most important processes in the plastics industry to-day. This is a comprehensive study course that will provide a fundamental understanding of extruder design and theory.

COURSE DIRECTOR:

Professor W. G. MacElinney, M.A.Sc.

COURSE CONSULTANT:

James E. Parkhill,
Barnett J. Danson & Associates Ltd.

EDUCATIONAL PROGRAMME COMMITTEE:

James E. Parkhill, Chairman
Barnett J. Danson & Associates Ltd.

William S. Berry,
Union Carbide Canada Ltd.

John Mills,
Usher Plastics.

Ralph L. Bruttn,
Dow Chemical of Canada Ltd.

Richard K. Buhr,
Mastex Industries Film Unit Ltd.

Harold A. Shure,
Naugatuck Chemicals.

James H. Wallace,
Plastene Canada Ltd.

PLACE: Room 119, Galbraith Building

Time: 7.30 p.m., beginning January 9th

FEE: \$25.00

Registration:

By mail or in person at Room 201, 84 Queen's Park, 9 a.m. to 5 p.m. daily except Saturdays. Application forms may be obtained by writing The Director, University Extension, 84 Queen's Pk., or by Telephoning WAlnut 3-6611, locals 301, 307.

PROGRAMME

Section I—THE ENGINEERING OF EXTRUSION

January 9th through January 30th inclusive.

4 Lectures

OPENING REMARKS:

James E. Parkhill,
Barnett J. Danson & Associates Ltd.

EXTRUSION THEORY

LECTURER: Gen. L. Bata,
Chemicals and Plastics Division,
Union Carbide Canada Ltd.,
Montreal, Que.

The first section will comprise four weekly lectures dealing with the basic principles of extrusion. Various types of extruders will be discussed such as ram extruders, pumps, single screw extruders, multiple screw extruders, etc. Primarily this section will be devoted to theoretical considerations of the modern single screw extruder with graphical representations employed wherever possible to show operation characteristics.

Section II—EXTRUSION EQUIPMENT

February 6th and February 13th

CONSTRUCTIONAL FEATURES OF SINGLE SCREW EXTRUDERS

LECTURER: F. McEwen,
Wilmod Machinery Co. Ltd.,
Toronto, Ont.

February 20th

REDUCTION GEAR AND DRIVE MOTOR

LECTURER: R. B. Gregory,
National Rubber Machinery Co.,
Akron, Ohio.

The second section will comprise three lectures covering constructional features of typical single and multiple screw extruders. Some of the topics to be covered will be barrel design, heating and heat control, cooling, hopper design, thrust bearing features, various types of reduction gears, etc.